

WE CLAIM:

1. ~~An improvement to a code-division-multiple-access~~
(CDMA) system employing spread-spectrum modulation, with the
CDMA system having a base station (BS) with a BS-spread-
spectrum transmitter and a BS-spread-spectrum receiver, and a
plurality of remote stations, with each remote station (RS)
having an RS-spread-spectrum transmitter and an RS-spread-
spectrum receiver, the method comprising the steps of:

transmitting from said BS-spread-spectrum transmitter
located at said base station, a broadcast common-
synchronization channel having a common chip-sequence signal
common to the plurality of remote stations, the broadcast
common-synchronization channel having a frame-timing signal;

receiving at a first RS-spread-spectrum receiver the
broadcast common-synchronization channel, and determining frame
timing at said first RS-spread-spectrum receiver from the
frame-timing signal;

transmitting from a first RS-spread-spectrum
transmitter an access-burst signal, the access-burst signal
having a plurality of segments, with each segment having a
preamble followed by a pilot signal, with the plurality of
segments having a plurality of power levels, respectively;

receiving at said BS spread-spectrum receiver the
access-burst signal at a detected-power level;

transmitting from said BS-spread-spectrum transmitter

25 to said first RS-spread-spectrum receiver, responsive to the
access-burst signal, an acknowledgment signal;

receiving at said first RS-spread-spectrum receiver
the acknowledgment signal; and

30 transmitting from said first RS-spread-spectrum
transmitter, responsive to the acknowledgment signal, to said
BS-spread-spectrum receiver, a spread-spectrum signal having
data.

5 2. The improvement as set forth in claim 1 with the step
of transmitting from the first RS-spread-spectrum transmitter
the access-burst signal, including the step of transmitting the
access-burst signal with the plurality of segments having the
plurality of power levels increasing sequentially,
respectively.

5 3. An improvement to a code-division-multiple-access
(CDMA) system employing spread-spectrum modulation, with the
CDMA system having a base station (BS) and a plurality of
remote stations (RS) with each remote station having an RS-
spread-spectrum transmitter and an RS-spread-spectrum receiver,
the improvement comprising:

a BS spread-spectrum transmitter located at said
base station, for transmitting a broadcast common-

10 synchronization channel having a common chip-sequence signal
common to the plurality of remote stations, the broadcast
common-synchronization channel having a frame-timing signal;

15 a first RS-spread-spectrum receiver, located at a
first remote station of the plurality of remote stations, for
receiving the broadcast common-synchronization channel, and
determining frame timing at said first RS-spread-spectrum
receiver from the frame-timing signal;

20 a first RS-spread-spectrum transmitter, located at
said first remote station of said plurality of remote stations,
for transmitting an access-burst signal, the access-burst
signal having a plurality of segments, with each segment having
a preamble followed by a pilot signal, with the plurality of
segments having a plurality of power levels, respectively;

25 said BS spread-spectrum receiver for receiving the
access-burst signal at a detected-power level;

said BS-spread-spectrum transmitter for transmitting
to said first RS-spread-spectrum receiver, responsive to
receiving the access-burst signal, an acknowledgment signal;

said first RS-spread-spectrum receiver for receiving
the acknowledgment signal; and

30 said first RS-spread-spectrum transmitter, responsive
to the acknowledgment signal, for transmitting to said BS-
spread-spectrum receiver, a spread-spectrum signal having data.

4. The improvement as set forth in claim 3 with said first RS-spread-spectrum transmitter including transmitting the access-burst signal with the plurality of segments having the plurality of power levels increasing sequentially, respectively.

Good
A17